

Rainier Commons Abatement Project Management and Oversight Process Controls

August 5, 2019

Purpose:

Several key actions, deployed throughout each individual Set-Up, represent elements critical to the success of the abatement project. Ensuring that each of these key actions are properly executed at the correct time in the abatement process is essential to ensuring the project accomplishes the objective of complete removal of all exterior paint, while continuing to ensure there is no risk to human health or the environment.

Background:

Individual Phase Work Plan Phase One (IPWP-1) received EPA approval on June 17, 2014. The work included the removal of all exterior paint from Building 13, as well as from the west elevations of Buildings 10 and 11.

From knowledge gained during this initial phase, several improvements to both engineering and management controls were identified and implemented during the next phase of work.

Engineering control improvements included the installation of a primary and secondary containment system within the interior spaces adjacent to abatement work, the use of a self-purging dust collection system, and a more robust approach to sandblasting operations.

Management control improvements included refinements in air sampling and dust monitoring protocols, as well as enhanced collection and analysis of pre and post abatement wipe samples.

IPWP-2A was approved by the EPA on July 11, 2016. The improvements discussed above were incorporated during the Phase 2A work, which consisted of the complete removal of exterior paint from the south elevation of Building 15. During the course of the Building 15 work, additional, in-depth testing (wipe sampling and air monitoring) was conducted to validate the efficacy of the improved controls.

Based on the strong, positive results from the complete body of testing performed in both phases, the EPA has provided new guidance for the control and management of Rainier's interior spaces during our remaining abatement work. The guidance streamlines the particulate monitoring process, while simultaneously enhancing the analysis of settled dust, through rigorous pre and post abatement wipe sampling. A graphic depiction of this process, or flowchart, is included as Exhibit One of this document, titled *Rainier Commons Abatement Project – Interior Protection Process*.

The remaining abatement work to be performed on the Rainier campus is documented in IPWP 2B and IPWP 3. IPWP2B describes paint removal work on limited portions of Buildings 6, 7, 8, 9,

and 10. IPWP 3 covers exterior paint abatement for the remainder of the campus, as well as including final touch-up work on the interior, 6th floor stairwell of Building 6.

In order to minimize disruption to tenant activities, as well as optimizing manpower and equipment, the remaining abatement work (IPWP 2B and 3) will be performed in a series of small “Set-ups”, each representing a complete, stand-alone abatement operation. Each Set-up will consist of four sub-processes: Mobilization, Abatement, Assessment and Verification, and Breakdown and Cleanup.

Application:

Requirements and expectations for the successful completion of each of these sub-processes are found throughout the various Exhibits contained within the IPWP 2B and 3 plans, as well as the Rainier Commons Work Plan (The Plan), revised July 25, 2013, and the Risk-Based Disposal Approval (RBDA), dated December 18, 2013, with its Amendments. Industry Best Management practices were also considered in the absence of other project documentation.

Based on these requirements, a series of checklists and worksheets have been developed to assist in verifying process compliance and to further serve as project documentation of completion of each Set-up. Collectively, they will represent the technical documentation and records from which the final project Close-Out Report will be developed.

Each Set-up will include the following worksheet and checklists as a permanent exhibit in the project final Close-Out Report:

Interior Space Assessment, Protection, and Inspection Checklist: Ensures that possible points of blasting media intrusion into adjacent interior spaces are identified, mitigated, and/or protected prior to abatement operations. Describes the inspections and safeguards utilized during daily abatement operations. Documents the required post-abatement assessment, breakdown and cleaning of each tenant space affected by each Set-up.

Inventory of Set-up Specific Conditions: Based on the knowledge of campus conditions, previous abatement experiences, and Best Management Practices, this checklist provides guidance for the identification and protection of the many unique conditions associated with each Set-up. The checklist will be utilized by the Abatement Contractor, Rainier Commons, and NVL Laboratories; to ensure adequate protective measures are in place for each new Set-up.

Negative Air Machine (NAM) Worksheet: The Excel spreadsheet provides an expeditious means of determining the quantity of NAMs required for each Set-up. By entering the square footage of the exterior surface included in any given Set-up, the spreadsheet will provide the total number of NAMs needed to supply four total air exchanges per hour. Note: during active blasting operations, negative air for the containment enclosure is supplied through the use of a stand-alone dust collection machine. Upon completion of daily blasting operations, the NAMs are energized to provide sufficient negative air to meet project requirements (-0.02”).

Observation Checklist and Completion Report: This checklist provides a summary of the implementation of critical engineering and management controls implemented for each, individual Set-up. Critical aspects of the mobilization, abatement, assessment, and breakdown processes are identified, as well as completion dates and person(s) making each observation. The checklist also identifies (by date) when photographs, daily field notes were generated for each Set-up, as well as active blasting dates and the dates when visual inspection of interior containment structures was performed. Photographs and daily field notes for all remaining Phases will be collected into weekly files and made available electronically upon the completion of each Set-up.